

# North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor William G. Ross Jr., Secretary

FACILITY PERMIT NO: 60-04

Phases 1&2

Permit to Operate: Renewal Date Issued: March 31, 2004

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# INDUSTRIAL SOLID WASTE LANDFILL PERMIT

## DUKE POWER COMPANY

is hereby issued a PERMIT to OPERATE an INDUSTRIAL SOLID WASTE LANDFILL FACILITY PHASES 1 AND 2

at the McGuire Nuclear Station, located off SR 2133 in Mecklenburg County, North Carolina, in accordance with Article 9, Chapter 130A, of the General Statutes of North Carolina and all rules promulgated thereunder and subject to the conditions set forth in this permit.

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Division of Waste Management

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## **ATTACHMENT 1**

#### **Approved Documents**

- Duke Power Company, McGuire Nuclear Station, Mecklenburg County, Permit to Operate, issued July 30, 1992.
- Duke Power Company, McGuire Nuclear Station, Mecklenburg County, Information Package, prepared by Duke Power, dated November 19, 1996.
- Duke Power Company, McGuire Nuclear Station, Mecklenburg County, Compliance Demonstration Report, prepared by Duke Power dated November 24, 1997.
- Duke Power Company, McGuire Nuclear Station, Mecklenburg County, Ground-Water Monitoring Program Sampling and Analysis Plan, prepared by Duke Power, dated November 25, 1997.
- Geology/Hydrogeology of the McGuire Landfill Site, prepared by Duke Power, Original May 17, 1999, Revised July 6, 1999,
- Duke Power Company, McGuire Nuclear Station, Mecklenburg County, Final Cap System (Revised) for Cell 1 Closure, prepared by Duke Power, dated February 24, 2000.
- Responses to Comments, dated November 12, 2003, received by Solid Waste Section November 17, 2003.

NC SOLID WASTE

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## ATTACHMENT 2

Conditions of Permit to Operate

## PART I: INDUSTRIAL WASTE LANDFILL FACILITY

## GENERAL CONDITIONS

- This permit shall be effective upon compliance with 15A NCAC 13B .0204 and when the 1. certified copy with the page, book number, date of recordation, and Register's seal is returned to the Solid Waste Section (Section). This condition is satisfied by the Permit to Construct dated July 30, 1991, recorded in deed book number 16064 pages 87 through 97 of Mecklenburg County Record of Deeds on September 5, 2003.
- This permit is subject to review every five years as per 15A NCAC 13B .0201(e), 2, according to the issuance date of the Permit to Operate. Modifications to the facility may be required in accordance with rules in effect at the time of review.
- The approved plans are described in Attachment 1, "Approved Documents". Where 3. discrepancies may exist, the most recent approved submittal and Conditions of Permit shall govern.
- 4. The landfill is permitted to receive solid waste generated solely by Duke Power Company, McGuire Nuclear Station as described in the approved plan and as defined in G.S. 130A-290 (a)(35) except where prohibited by North Carolina General Statutes Article 9 of Chapter 130A, and rules adopted by the Commission for Health Services.
- This facility is subject to the requirements of all applicable sections of the most recent 5. version of the North Carolina Solid Waste Management Rules, 15A NCAC 13B and the specific conditions contained herein.
- 6. This permit is not transferable.

## PART II: INDUSTRIAL LANDFILL UNIT

## **OPERATIONAL CONDITIONS**

- This permit approves the operation of landfill, Cell 2 as well as the on-site environmental 7. management and protection facilities as described in the approved plans.
- The solid waste management units within this facility shall conform to all operating 8. requirements described in the approved plans and 15A NCAC 13B .0505.

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- 9. Closure or partial closure of any landfill unit shall be in accordance with the Closure Plans described in the approved plans listed in Attachment 1. The approved final cover is a 36-ml thick very flexible polyethylene (VFPE) liner. This cap system was tested using the Hydrologic Evaluation of Landfill Performance (HELP) model. Final Closure Plans shall be submitted to the Division at least 90 days prior to implementation.
- 10. Ground water quality at this facility is subject to the "Classifications and Water Quality Standards Applicable To The Groundwater of North Carolina", 15A NCAC 2L. This includes, but is not limited to provisions for detection monitoring, assessment, and corrective action. Compliance will be determined with ground water monitoring at the landfill.

#### MONITORING AND REPORTING

- 11. Ground water monitoring at this unit shall be as described in the approved monitoring plan.
- 12. A readily accessible unobstructed path shall be cleared and maintained so that fourwheel drive vehicles may access monitoring well locations at all times.
- 13. A field log book which details all development, sampling, repair, and all other pertinent activities associated with each monitoring well and all sampling activities associated with each leachate sampling location shall be kept as part of the permanent facility record.
- 14. Records of all ground water and leachate analytical data shall be kept as part of the permanent facility record.
- 15. Ground water monitoring wells and surface water sampling locations must be sampled at least semi-annually according to the specifications outlined in the approved water quality monitoring plan and the current policies and guidelines of the Section in effect at the time of sampling. The sampling regime should include but not limited to Appendix IVOCs, RCRA VIII metals, sulfates, chlorides and TPH (EPA Method 8015 or 5030).
- 16. Reports of the analytical data for each waterquality sampling event shall be submitted to the Section within 60 days of the respective sampling event. Analytical data shall be submitted in a manner prescribed by the Section.
- 17. The two independent samples conducted in December 2002 and May 2003 comprise the baseline sampling event, were collected from each ground water monitoring well. The report was submitted to the Section before issuance of the Permit to Operate.
- 18. Untreated leachate shall be sampled and analyzed at least semi-annually concurrently with the ground water sampling. The leachate shall be analyzed for the same constituents as the ground water. The leachate sample location shall be from the discharge pipe going into the leachate lagoon. Test results shall be submitted to the Section along with ground water test results.

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- 19. Supplemental groundwater monitoring shall be performed as specified by the Design Engineer in the Duke Power, McGuire Nuclear Station, Mecklenburg County, Ground-Water Monitoring Program Sampling and Analysis Plan, dated November 25, 1997.
- 20. On or before August 1 of each year, the permittee shall report the amount of waste received (in tons) at this facility and disposed of in the landfill units to the Solid Waste Section, on forms prescribed by the Section as described in 15A NCAC13B 130A-309.09D. This report shall include the following information:
  - a. The reporting period shall be for the previous year, beginning July 1 and ending on June 30.
  - b. The amount of waste received and landfilled in the Industrial Landfill compiled on a monthly basis; and
  - C. The completed report shall be forwarded to the Solid Waste Section's Regional Waste Management Specialist for the facility. A copy of the completed report shall be forwarded to the County Manager of each county from which waste was received.

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